

WHAT IS CLAIMED IS:

1. An electrode employing a nitride-based semiconductor of III-V group compound, comprising:
 - a nitride-based semiconductor layer of III-V group compound;
 - an electrode metal; and
- 5 a metal oxide inserted between said nitride-based semiconductor layer of III-V group compound and said electrode metal.
2. The electrode employing a nitride-based semiconductor of III-V group compound according to claim 1, wherein said metal oxide is an oxide of metal element(s) permitting formation of a nitride semiconductor.
3. The electrode employing a nitride-based semiconductor of III-V group compound according to claim 1, wherein said metal oxide is a semiconductor having a bandgap of not greater than 3.0 eV.
4. The electrode employing a nitride-based semiconductor of III-V group compound according to claim 1, wherein a metal of said metal oxide includes at least one of indium (In), lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd), promethium (Pm), samarium (Sm),
5 europium (Eu), gadolinium (Gd), terbium (Tb), dysprosium (Dy), holmium (Ho), erbium (Er), thulium (Tm), ytterbium (Yb), and lutetium (Lu).
5. A producing method of an electrode employing a nitride-based semiconductor of III-V group compound, comprising the steps of:
 - forming a nitride-based semiconductor layer of III-V group compound;
 - 5 forming an electrode metal; and
 - inserting a metal oxide between said nitride-based semiconductor layer of III-V group compound and said electrode metal in an oxygen-deficient state.

6. The producing method of an electrode employing a nitride-based semiconductor of III-V group compound according to claim 5, wherein said step of inserting the metal oxide is conducted by sputtering or evaporation.